

MW 5/18/04

Claims 1-18 (canceled)

In the Claims:

Claim 19 amend to read as follows:

19. (Four Times Amended) An apparatus for depositing a material having a work function of approximately 1eV on a substrate by laser ablation using short-wavelength photons, including:

a deposition chamber,

a target containing a material having a work function of approximately 1eV in said chamber,

a laser capable of directing photons at or below visible wavelength into said chamber and onto said target,

means for rotating said target,

means for controlling the composition of the deposit by controlling at least one of the groups consisting of the environment of said deposition chamber, the target composition, and the target temperature.

a substrate located in said chamber,

means for holding said substrate,

means for rotating and tilting said substrate,

means for processing the surface of the substrate, and

means for heating and cooling said substrate.

Claim 20(canceled)

21. The apparatus of Claim 19, additionally including means for maintaining a vacuum in said deposition chamber.

Claim 22 canceled

~~3~~ 23. The apparatus of Claim ~~19~~, additionally including an ion gun for surface cleaning the substrate.

~~4~~ 24. The apparatus of Claim ~~19~~, additionally including a gas generator for producing a flow of molecules on a surface of the substrate.

~~5~~ 25. The apparatus of Claim ~~19~~, wherein said deposition chamber includes a window through which the short-wavelength photons are directed.

Claim 26 (canceled)

~~19~~ 27. The apparatus of Claim ~~19~~, wherein said target is retained in a target holder and rotated at 1-10 rpm.

~~28~~ 28. The apparatus of Claim 19, wherein said means for holding said substrate is rotated at 1 to 10 rpm and tilted at an angle of 0 to 90°.

~~29~~ 29. The apparatus of Claim ~~19~~, wherein said laser is selected from the group consisting of NdYAG, an excimer, and wherein said short-wavelength is in the range of 200 to 550 nm.

~~30~~ 30. The apparatus of Claim ~~19~~, wherein said laser has a pulse length of 6 to 60 nanoseconds, with an energy fluence of 0.2-5 J/pulse.